

**Amendments to the Drawings:**

Please replace the originally filed informal drawings with the 17 attached sheets of formal drawings.

Attachment: Replacement Sheets (17 pages)

### **REMARKS**

Applicants thank the Examiner for the detailed Office Action dated April 28, 2005. Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 1-38 were pending in the application.

Claims 10-15, 31, and 35-38 are requested to be cancelled without prejudice or disclaimer.

Claims 1-9, 16-30, and 32-34 are currently being amended.

Claims 39-59 are being added.

After amending the claims as set forth above, claims 1-9, 16-30, 32-34, and 39-59 are now pending in this application.

### **Information Disclosure Statement filed on April 2, 2004 and November 12, 2004**

Applicants have resubmitted the foreign patent documents and the non-patent literature listed on the Information Disclosure Statements dated April 2, 2004 and November 12, 2004. Applicants undersigned representative notes that these documents were submitted with the original IDSs. However, recently it seems that the PTO is losing large numbers of foreign patent documents and non-patent literature that were properly submitted.

### **Claim Rejections**

#### **Claims 1-5**

In the Office Action, claims 1-3 were rejected under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 3,433,146 (Russell). Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Russell in view of U.S. Patent No. 4,854,949 (Giles, Sr. et al.). Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Russell in

view of U.S. Patent No. 5,679,120 (Yamada et al.). Applicants respectfully traverse the rejection. None of the cited references teach, disclose, or suggest, the claimed subject matter. Applicant notes that claim 1 is in independent form and claims 2-5 depend from independent claim 1.

Applicants have amended claim 1 to recite a “baffle” including, *intra alia*, a “plurality of substantially S-shaped baffle members” and a “frame” wherein “the baffle is included as part of a separation cartridge” that comprises “another separation medium,” which is not identically disclosed in Russell. In particular, Russell does not disclose the baffle being included as part of a separation cartridge that includes another separation medium. Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102(b) over Russell.

Applicants note that claim 1 has been amended to recite substantially the same subject matter that was included in original dependent claim 4. Accordingly, Applicants address the rejection of claim 4 in order to address all of the issues identified in the Office Action. Applicants respectfully submit that there is no motivation, teaching, or suggestion to combine the subject matter of Russell and Giles, Sr. et al. to provide the subject matter recited in claim 1.

The legal standards under 35 U.S.C. § 103(a) are well-settled. In proceedings before the Patent and Trademark Office, the Office bears the burden of establishing a prima facie case of obviousness based upon the prior art. In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). “[The PTO] can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.” In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Further, satisfying this burden requires the Patent Office to make “particular findings . . . as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.” In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). In making these findings, the Patent Office must consider each prior art reference in its entirety, including portions that would lead

away from the claimed invention. W.L. Gore v. Garlock, Inc., 721 F.2d 1540, 1552, 220 USPQ 303, 312 (Fed. Cir. 1983).

In the present case, the Patent Office has failed to provide “particular findings,” as required by the Federal Circuit, regarding why one of ordinary skill would be motivated to “provide at least one other separation medium within the cartridge of Russell” as alleged in the Office Action. In the Office Action, the alleged motivation is to “enhance separation efficiency.” However, the Patent Office has failed to provide particular findings regarding why it would be desirable to provide “at least one other separation medium within the cartridge of Russell” to “enhance separation efficiency” instead of adding a second separate cartridge positioned above the first cartridge to “enhance separation efficiency” as already taught by Russell. See Russell, col. 7, lines 3-8; Fig. 9. Moreover, the Patent Office has also failed to provide particular findings regarding why it would be desirable to “provide at least one other separation medium within the cartridge of Russell” when such a combination would appear to make the cartridge of Russell too large to be positioned in duct 29 in the manner shown and described in Russell. See Russell, col. 3, lines 36-43; Fig. 2. Furthermore, the Patent Office has also failed to provide particular findings regarding why it would be desirable to provide one of the separation mediums from Giles, Sr. et al., which would appear to significantly increase the pressure drop through the duct, within the cartridge shown in Russell when Russell also teaches that it is desirable to use the particular arrangement of baffles shown in Russell in order to minimize any reduction in the velocity of the air through the duct. See Russell, col. 1, lines 50-54; col. 5, lines 54-58. Additionally, the Patent Office has failed to provide particular findings regarding why it would be desirable to combine the teachings of Giles, Sr. et al. and Russell to provide “at least one other separation medium within the cartridge of Russell” when Giles, Sr. et al. teaches the use of multiple filters to sufficiently clean air for recirculation, while acknowledging that such a degree of cleaning is not necessary for those systems, such as the one shown in Russell, where the air is vented into the atmosphere. See Giles, Sr. et al., col. 1, lines 10-33; col. 2, lines 4-18; Russell, col. 2, lines 58-63.

Applicants respectfully submit that there is no motivation, teaching, or suggestion to combine Russell and Giles, Sr. et al. to provide the subject matter recited in claim 1.

Accordingly, Applicants submit that the subject matter recited in independent claim 1 is not obvious and is patentable. Applicants also submit that claims 2-5 are patentable for at least the same reasons that claim 1 is patentable. Applicants respectfully request withdrawal of the rejection of claims 1-5.

#### **Claims 6-9**

In the Office Action, claims 6 and 7 were rejected under 35 U.S.C. § 102(b) as being unpatentable over Russell. Claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Russell in view of Yamada et al. Claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Russell in view of U.S. Patent No. 5,479,907 (Walker, Jr.). Applicants respectfully traverse the rejection. None of the cited references teach, disclose, or suggest, the claimed subject matter. Applicant notes that claim 6 is in independent form and claims 7-9 depend from independent claim 6.

Applicants have amended claim 6 to recite a “separation cartridge” including, *intra alia*, a “baffle including a plurality of substantially S-shaped baffle members” and “another separation medium,” which is not identically disclosed in Russell. In particular, Russell does not disclose the baffle being included as part of a separation cartridge that includes another separation medium. Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102(b) over Russell. Applicants also submit that the addition of Yamada et al. or Walker, Jr. does not remedy the defects of Russell. Applicants submit that claims 7-9 are patentable for at least the same reasons that claim 6 is patentable.

#### **Claims 10-15**

Applicants have canceled claims 10-15 without prejudice or disclaimer, thus rendering the rejections of these claims moot.

**Claims 16-19**

In the Office Action, claim 16 was rejected under 35 U.S.C. § 102(b) as being unpatentable over either Russell, Yamada et al., or U.S. Patent No. 1,926,924 (Sylvan). Claims 16-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 768,415 (Wingrove) in view of Yamada et al. Applicants respectfully traverse the rejection. None of the cited references teach, disclose, or suggest, the claimed subject matter. Applicant notes that claim 16 is in independent form, and claims 17-19 depend from independent claim 16.

Applicants have amended claim 16 to recite a “baffle” including, *intra alia*, a “plurality of baffle members” where “the baffle members defin[e] a plurality of channels each comprising a single entry opening and a single exit opening” wherein “the minimum amount the substance must be deflected to pass through each of the plurality of channels is at least approximately 180 degrees,” which is not identically disclosed in Russell, Yamada et al., or Sylvan. In particular, none of these references show a baffle wherein “the minimum amount the substance must be deflected to pass through each of the plurality of channels is at least approximately 180 degrees” as recited in independent claim 16. Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102(b) over Russell, Yamada et al., and Sylvan.

Applicants note that independent claim 16 has been amended to recite a similar limitation to the limitation recited in original claim 17. Therefore; Applicants address the rejection of claim 17 in the Office Action in order to address all of the issues identified in the Office Action.

Applicants note that claim 16 has been amended in a manner that moots the rationale given by the Patent Office for combining Wingrove and Yamada et al. (i.e., to provide a different frame for the device in Wingrove). For example, claim 16 no longer recites “a frame.” However, claim 16, as amended, does recite a “baffle” including, *intra alia*, a “plurality of baffle members” where “the baffle members defin[e] a plurality of channels each

comprising a single entry opening and a single exit opening” wherein “the minimum amount the substance must be deflected to pass through each of the plurality of channels is at least approximately 180 degrees” and wherein “the baffle is configured to separate the oleo substance from the air stream in the kitchen hood system.” Applicant notes that when functional language is used, the Patent Office is required to show that the functional limitations are expressly or inherently described in the cited references. In re Schreiber, 128 F.3d 1473, 1478 (Fed. Cir. 1997) (explaining that the Patent Office addressed whether the functional limitations in the claim gave it patentable weight and concluded they did not because those limitations were found to be inherent in the prior art reference). The Patent Office cannot simply ignore these limitations as if they did not exist. Wingrove does not disclose, either expressly or inherently, the cylinder from Wingrove being configured to separate an oleo substance from an air stream in a kitchen hood system. Rather, Wingrove shows the cylinder as being configured to remove oil from ammonia gas discharged from a compressor in an ice-making machine. Wingrove, col. 1, lines 17-24 and 37-44.

Lacking an express or inherent disclosure, the Patent Office may rely on a rejection under 35 U.S.C. § 103(a). However, Applicants note that the Patent Office must still provide the “particular findings” required by the Federal Circuit regarding why one of ordinary skill would have chosen to combine the two references. In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (explaining that the Patent Office must make “particular findings . . . as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed”). In particular, the Patent Office must provide particular findings regarding why it would be desirable to alter the configuration shown in Wingrove so that the resulting filter is configured to be used in a kitchen hood system.

Applicants respectfully submit that, for the above reasons, independent claim 16 is patentable. Applicants also submit that claims 17-19 are patentable for at least the same reasons that independent claim 16 is patentable.

**Claims 20-23**

In the Office Action, claims 20-23 were rejected under 35 U.S.C. § 102(b) as being unpatentable over Yamada et al. Applicants respectfully traverse the rejection. Yamada et al. does not identically disclose the claimed subject matter. Applicant notes that claim 20 is in independent form and claims 21-23 depend from independent claim 20.

Applicants have amended claim 20 to recite a “separation cartridge” including, *intra alia*, a “baffle including a plurality of baffle members each of which has rounded edges” and “another separation medium,” which is not identically disclosed in Yamada et al. In particular, Yamada et al. does not disclose the baffle being included as part of a separation cartridge that includes another separation medium. Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102(b) over Yamada et al. Applicants also submit that dependent claims 21-23 are patentable for at least the same reasons that independent claim 20 is patentable.

**Claims 24-25**

In the Office Action, claim 24 was rejected under 35 U.S.C. § 102(b) as being unpatentable over Yamada et al. Claims 24-25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Russell in view of Yamada et al. Applicants respectfully traverse the rejection. None of the cited references teach, disclose, or suggest, the claimed subject matter. Applicant notes that claim 24 is in independent form and claim 25 depends from independent claim 24.

Applicants have amended claim 24 to recite a “baffle” including, *intra alia*, a “plurality of substantially S-shaped baffle members each of which has rounded edges,” which is not identically disclosed in Yamada et al. In particular, Yamada et al. does not disclose the baffle members being substantially S-shaped. Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102(b) over Yamada et al.

Applicants note that independent claim 24 has been amended to recite a similar limitation to the limitation recited in original claim 25. Therefore, Applicants address the



rejection of claim 25 in the Office Action in order to address all of the issues identified in the Office Action. Applicants respectfully submit that there is no motivation, teaching, or suggestion to combine the subject matter of Russell and Yamada et al. to provide the subject matter recited in claim 24.

The legal standards under 35 U.S.C. § 103(a) are well-settled. In proceedings before the Patent and Trademark Office, the Office bears the burden of establishing a prima facie case of obviousness based upon the prior art. In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). “[The PTO] can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.” In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Further, satisfying this burden requires the Patent Office to make “particular findings . . . as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.” In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). In making these findings, the Patent Office must consider each prior art reference in its entirety, including portions that would lead away from the claimed invention. W.L. Gore v. Garlock, Inc., 721 F.2d 1540, 1552, 220 USPQ 303, 312 (Fed. Cir. 1983).

In the present case, the Patent Office has failed to provide “particular findings,” as required by the Federal Circuit, regarding why one of ordinary skill would be motivated to “provide rounded edges on the baffle members of Russell” as alleged in the Office Action. In the Office Action, the alleged motivation is to “provide a further mechanism for catching entrained particles within an airflow.” Applicants note, however, that such a motivation is not mentioned in Yamada et al. or Russell. Accordingly, the Patent Office has failed to provide particular findings regarding why it would be desirable to “provide rounded edges on the baffle members of Russell” when neither reference discloses a motivation for doing so. Applicants note that rounded edges may be shown in Yamada et al. for a number of reasons such as the specific manufacturing process used for the embodiment shown in Fig. 6 of Yamada et al., etc. See Yamada et al., col. 4, line 67 to col. 5, line 5. The Patent Office

merely assumes that the motivation cited by the Examiner is proper without providing “particular findings” as to why it is proper.

Applicants respectfully submit that there is no motivation, teaching, or suggestion to combine Russell and Yamada et al. to provide the subject matter recited in claim 24. Accordingly, Applicants submit that the subject matter recited in independent claim 24 is not obvious and is patentable. Applicants also submit that claim 25, as amended, is patentable for at least the same reasons that claim 24 is patentable. Applicants respectfully request withdrawal of the rejection of claims 24-25.

#### **Claims 26-27**

In the Office Action, claims 26-27 were rejected under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 4,545,792 (Huttlin). Applicants respectfully traverse the rejection. None of the cited references teach, disclose, or suggest, the claimed subject matter. Applicant notes that claim 26 is in independent form and claim 27 depends from independent claim 24.

Applicants have amended claim 26 to recite a “separation cartridge” including, *intra alia*, a “baffle including a plurality of substantially S-shaped baffle members,” a “mesh filter,” and “a bed of particles,” which is not identically disclosed in Huttlin. Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102(b) over Huttlin. Applicants also submit that dependent claim 27 is patentable for at least the same reasons that independent claim 26 is patentable.

#### **Claims 28-31**

In the Office Action, claims 28-31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamada et al. in view of U.S. Patent No. 5,479,907 (Walker, Jr.). Applicants respectfully traverse the rejection. None of the cited references teach, disclose, or suggest, the claimed subject matter. Applicant notes that claim 28 is in independent form and

claims 29-30 depend from independent claim 28. Claim 31 has been canceled without prejudice or disclaimer.

Applicants respectfully submit that there is no motivation, teaching, or suggestion to combine the subject matter of Yamada et al. and Walker, Jr. to provide the subject matter recited in claims 28-31. The Patent Office has failed to provide “particular findings,” as required by the Federal Circuit, regarding why one of ordinary skill would be motivated to “provide separation media inside the channels of Yamada et al to reduce the flow velocity of the air mixture through the baffle and to provide for enhanced collection sites for the purpose of condensing vapor entering the baffle” as alleged in the Office Action. In particular, the Patent Office has failed to provide “particular findings” why one of ordinary skill would be motivated to combine Yamada et al. and Walker, Jr. to “reduce the flow velocity” when Yamada et al. teaches that it is desirable to **increase** the flow velocity through the baffle. See Yamada et al., col. 1, line 63 to col. 2, line 5; col. 2, lines 16-31, etc. In so teaching, Yamada et al. teaches away from the combination alleged in the office action.

Accordingly, Applicants submit that the subject matter recited in independent claim 28 is not obvious and is patentable. Applicants also submit that claims 29-30 are patentable for at least the same reasons that claim 28 is patentable. Applicants respectfully request withdrawal of the rejection of claims 28-30.

### **Claim 32**

In the Office Action, claim 32 was rejected under 35 U.S.C. § 102(b) as being unpatentable over Russell. Applicants respectfully traverse the rejection. Russell does not identically disclose the claimed subject matter. Specifically, claim 32 recites a “kitchen hood” including, *intra alia*, a “baffle which includes a plurality of substantially S-shaped baffle members” and a “bed of particles” wherein “the baffle and the bed of particles are positioned in the kitchen hood,” which is not identically disclosed by Russell. Accordingly, Applicants request that the rejection of claim 32 be withdrawn.

**Claim 33**

In the Office Action, claim 33 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Wingrove in view of Yamada et al. Applicants respectfully traverse the rejection. None of the cited references teach, disclose, or suggest, the claimed subject matter. Applicant notes that claim 33 is in independent form.

Applicants respectfully submit that the combination of Wingrove and Yamada et al. would not result in the subject matter recited in independent claim 33. Specifically, claim 33, as amended, recites a “baffle” including, *intra alia*, a “plurality of baffle members” and a “frame configured to hold the baffle members in a substantially parallel relationship to each other, the baffle members also being arranged in at least two offset and opposed rows,” which is not disclosed, taught, or suggested by Wingrove or Yamada et al. In particular, neither of these two references discloses, teaches or suggests, two **offset and opposed** rows of baffle members. Accordingly, Applicants request that the rejection of claim 33 be withdrawn.

**Claim 34**

In the Office Action, claim 34 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Wingrove in view of Yamada et al. Applicants respectfully traverse the rejection. None of the cited references teach, disclose, or suggest, the claimed subject matter. Applicant notes that claim 34 is in independent form.

Applicants respectfully submit that the combination of Wingrove and Yamada et al. would not result in the subject matter recited in independent claim 34. Specifically, claim 34, as amended, recites a “baffle” including, *intra alia*, a “plurality of baffle members” and a “frame configured to hold the baffle members in a substantially parallel relationship to each other, the baffle members also being arranged in at least two offset and opposed rows,” which is not disclosed, taught, or suggested by Wingrove or Yamada et al. In particular, neither of these two references discloses, teaches or suggests, two **offset and opposed** rows of baffle members. Accordingly, Applicants request that the rejection of claim 34 be withdrawn.

**Claims 35-38**

Claims 35-38 have been canceled without prejudice or disclaimer, thus rendering all rejections of these claims moot.

**New Claims**

Applicants have added new claims 39-59. Of these claims 39-46 are dependent claims that depend from previously pending independent claims. Therefore, claims 39-46 are patentable for at least the same reasons that the independent claims that they depend from are patentable.

New independent claim 47 and claims 48-49, which depend from claim 47, are patentable because none of the cited references teach, disclose, or suggest a “kitchen hood” including, *intra alia*, a “baffle including a plurality of baffle members each of which has rounded edges,” and a “bed of particles” as recited in claim 47. New independent claim 50 and claims 51-54, which depend from claim 50, are patentable because none of the cited references teach, disclose, or suggest a “separation cartridge” including, *intra alia*, a “baffle including a plurality of baffle members each of which has rounded edges” and a “bed of particles” as recited in claim 50. New independent claim 55 and claims 56-57, which depend from claim 55, are patentable because none of the cited references teach, disclose, or suggest a “separation cartridge” including, *intra alia*, a “baffle including a plurality of substantially S-shaped baffle members” and a “bed of particles” as recited in claim 55. New independent claim 58 and claim 59, which depends from claim 58, are patentable because none of the cited references teach, disclose, or suggest a “baffle” including, *intra alia*, a “a plurality of substantially S-shaped baffle members” wherein “the minimum amount an oleo substance must be deflected to pass through the baffle is at least approximately 180 degrees” as recited in claim 58.

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Applicants respectfully submit that each and every outstanding objection and rejection has been overcome, and the present Application is in a condition for allowance. Applicants respectfully request reconsideration and allowance of the pending claims.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Applicants respectfully put the Patent Office and all others on notice that all arguments, representations, and/or amendments contained herein are only applicable to the present patent application and should not be considered when evaluating any other patent or patent application including any patents or patent applications which claim priority to this patent application and/or any patents or patent applications to which priority is claimed by this patent application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1447. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 06-1447.

Respectfully submitted,

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